Agenda Item D-2

38 th Argos Operations Committee meeting
Prepared by CLS
March 28th 2004

Status of Argos instruments

1- Argos 1 instruments :

The Argos instrument onboard NOAA-11 has only 3 DRUs working since a few days after launch (1988). The fourth DRU is in standby. This satellite, launched in September 1988, will be decommissioned soon.

Argos instruments onboard NOAA-11 and 14 have no redundant receiver. They have an increased telemetry bit rate of respectively 960 and 1200 b/s from 720 b/s.

Argos instruments onboard NOAA-12 has spent 13 years in orbit. It is part of the initial series TN and NOAA-A to G and was manufactured a long time ago.

All three payloads are fully operational.

2- Argos 2 instruments:

Argos instruments onboard NOAA-15, 16 and 17 are second generation instruments. They have an increased receiving bandwidth (80 kHz instead of 24 kHz) and an increased telemetry bit rate of 2560 b/s. This leads to an increase of the capacity to process PTT transmission of 3.5 when the entire bandwidth is used. All three payloads are fully operational.

ADEOS II was launch in December 2002, and the Argos payload was switched on end of January 2003. This payload is composed of an Argos 2 receiver, a processor and a downlink transceiver provided by NASDA. Since January, the payload has been fully tested and was operational until the spacecraft failed on October 24, 2003.

We have now six operational payloads on orbit, five after the decommissioning of N11. Three are Argos 2. The last Argos 2 payload is scheduled for launch on board NOAA-N tentatively January 27, 2004.

3- Orbital planes:

The figure below shows the repartition of the orbital planes of the five satellites as of May 2003. As said during the 36th OPSCOMM, it obviously shows the interest of NOAA 12 data for Service Argos, filling the gap between N15 and N16. Two years later, N14 starts filling the gap between N15 and N17.

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Equator crossing time (May 2004)
(plus drift in 6,12,18 months)